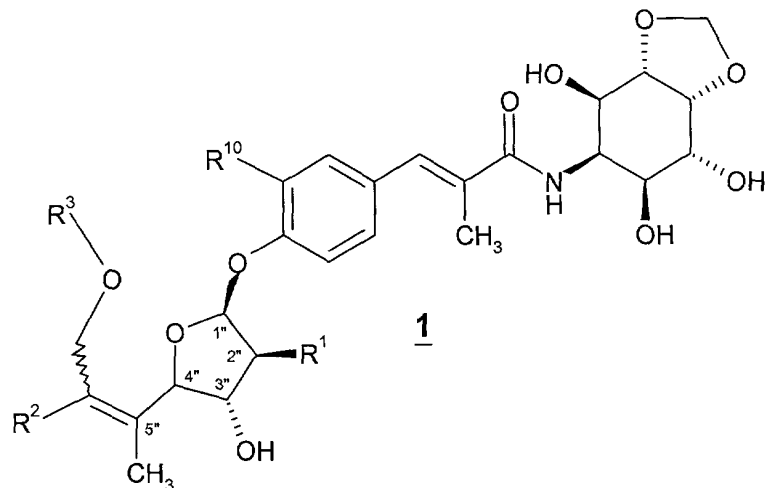


# CLAIMS

1. A compound of the formula



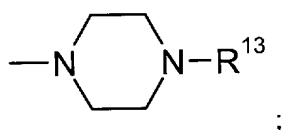
- 5 or a pharmaceutically acceptable prodrug, salt or solvate thereof wherein:  
each  $R^1$  and  $R^{10}$  is independently H or OH;  
 $R^2$  is H or  $C_1$ - $C_6$  alkyl wherein the foregoing  $R^2$  alkyl group is optionally substituted by  
1 or 2  $R^4$  groups;  
each  $R^3$  is independently selected from  $C_6$ - $C_{10}$  aryl or 5 to 10 membered  
10 heteroaromatic, and the heteroaromatic and aryl moieties of the foregoing  $R^3$  groups are  
substituted by a  $-CHR^9NR^{11}R^{12}$  group and optionally substituted by 1 to 4  $R^4$  groups;  
each  $R^4$  is independently selected from,  $C_1$ - $C_{10}$  alkyl,  $C_2$ - $C_{10}$  alkenyl,  $C_2$ - $C_{10}$  alkynyl,  
halo, cyano, nitro, trifluoromethyl, difluoromethyl, trifluoromethoxy, azido, hydroxy,  $C_1$ - $C_6$   
alkoxy,  $-C(O)R^5$ ,  $-C(O)OR^5$ ,  $-NR^6C(O)OR^8$ ,  $-OC(O)R^5$ ,  $-NR^6SO_2R^8$ ,  $-SO_2NR^5R^6$ ,  $-NR^6C(O)R^5$ ,  
15  $-C(O)NR^5R^6$ ,  $-NR^5R^6$ ,  $-S(O)_j(CR^6R^7)_m(C_6-C_{10}$  aryl),  $-S(O)_j(C_1-C_6$  alkyl),  $-(CR^6R^7)_m(C_6-C_{10}$  aryl),  
 $-O(CR^6R^7)_m(C_6-C_{10}$  aryl),  $-NR^6(CR^6R^7)_m(C_6-C_{10}$  aryl),  $-(CR^6R^7)_m(4$  to 10 membered  
heterocyclic),  $-C(O)(CR^6R^7)_m(C_6-C_{10}$  aryl), and  $-C(O)(CR^6R^7)_m(4$  to 10 membered  
heterocyclic), wherein m is an integer from 0 to 4; j is an integer from 0 to 2, and said alkyl,  
alkenyl, alkynyl, aryl and heterocyclic moieties of the foregoing  $R^4$  groups are optionally  
20 substituted by 1 to 3 substituents independently selected from halo, cyano, nitro,  
trifluoromethyl, trifluoromethoxy, azido,  $-NR^6SO_2R^8$ ,  $-SO_2NR^5R^6$ ,  $-C(O)R^5$ ,  $-C(O)OR^5$ ,  
 $-OC(O)R^5$ ,  $-NR^6C(O)OR^8$ ,  $-NR^6C(O)R^5$ ,  $-C(O)NR^5R^6$ ,  $-NR^5R^6$ ,  $-OR^5$ ,  $C_1$ - $C_{10}$  alkyl,  $-(CR^6R^7)_m(C_6-$   
 $C_{10}$  aryl), and  $-(CR^6R^7)_m(4$  to 10 membered heterocyclic), wherein m is an integer from 0 to 4;  
each  $R^5$ ,  $R^9$ ,  $R^{11}$ ,  $R^{12}$ ,  $R^{13}$  and  $R^{14}$  is independently selected from H,  $C_1$ - $C_{10}$  alkyl,  
25  $-(CR^6R^7)_m(C_6-C_{10}$  aryl),  $-(CR^6R^7)_m(C_3-C_{10}$  cycloalkyl), indanyl and  $-(CR^6R^7)_m(4$  to 10 membered  
heterocyclic), wherein m is an integer from 0 to 4, and the foregoing  $R^5$ ,  $R^{11}$ ,  $R^9$  and  $R^{12}$

substituents, except H, are optionally substituted by 1 to 3 substituents independently selected from halo, cyano, nitro, benzyl, trifluoromethyl, trifluoromethoxy, azido,  $-\text{CH}_2(\text{C}_2\text{-C}_6\text{ alkenyl})$ ,  $-\text{C}(\text{O})\text{R}^6$ ,  $-\text{C}(\text{O})\text{OR}^6$ ,  $-\text{OC}(\text{O})\text{R}^6$ ,  $-\text{NR}^6\text{C}(\text{O})\text{R}^7$ ,  $-\text{C}(\text{O})\text{NR}^6\text{R}^7$ ,  $-\text{NR}^6\text{R}^7$ , hydroxy,  $\text{C}_1\text{-C}_6$  alkyl, and  $\text{C}_1\text{-C}_6$  alkoxy;

- 5 or  $\text{R}^{11}$  and  $\text{R}^{12}$  can be taken together to form a 4 to 7 membered heterocyclic group optionally substituted by one  $\text{R}^{14}$  group;

each  $\text{R}^6$  and  $\text{R}^7$  is independently selected from H,  $-\text{C}(\text{O})(\text{C}_1\text{-C}_6\text{ alkyl})$ ,  $\text{C}_1\text{-C}_6$  alkyl or  $-(\text{CH}_2)_n(\text{C}_6\text{-C}_{10}\text{ aryl})$  wherein n is an integer from 0 to 2, and the foregoing aryl substituents are optionally substituted by 1 to 3 substituents independently selected from halo, cyano, nitro, trifluoromethyl, trifluoromethoxy, and azido;

$-\text{NR}^6\text{R}^7$  can be taken together to form the following structure



each  $\text{R}^8$  is selected from the substituents provided in the definition of  $\text{R}^5$  except  $\text{R}^8$  is not H.

- 15 2. A compound according to claim 1 include those wherein  $\text{R}^3$  is phenyl substituted by one  $-\text{CH}_2\text{NR}^{11}\text{R}^{12}$  group and optionally substituted by 1 to 4  $\text{R}^4$  groups.

3. A compound according to claim 2 wherein said  $\text{R}^{11}$  and  $\text{R}^{12}$  groups are independently selected from  $\text{C}_1\text{-C}_{10}$  alkyl,  $-(\text{CR}^6\text{R}^7)_m(\text{C}_6\text{-C}_{10}\text{ aryl})$ ,  $-(\text{CR}^6\text{R}^7)_m(\text{C}_3\text{-C}_{10}\text{ cycloalkyl})$ , indanyl and  $-(\text{CR}^6\text{R}^7)_m(4\text{ to }10\text{ membered heterocyclic})$ , wherein m is an integer from 0 to 4, and the foregoing,  $\text{R}^{11}$  and  $\text{R}^{12}$  substituents, are optionally substituted by 1 to 3 substituents independently selected from halo, benzyl, trifluoromethyl, trifluoromethoxy,  $-\text{NR}^6\text{R}^7$ .

4. A compound according to claim 1 wherein one of the  $\text{R}^4$  groups is halo and ortho to the ether oxygen.

5. A compound according to claim 4 wherein said halo group is chlorine.

- 25 6. A compound according to claim 1 wherein said compound is selected from the group consisting of:

3-(4-((2S,3S,4S,5R)-5-[3-(2-chloro-4-[(methyl-naphthalen-1-ylmethyl-amino)-methyl]-phenoxy)-1-methyl-(1E)-propenyl]-3,4-dihydroxy-tetrahydro-furan-2-yloxy)-3-hydroxy-phenyl)-2-methyl-N-((3aS,4R,5R,6S,7R,7aR)-4,6,7-trihydroxy-hexahydro-benzo[1,3]dioxol-5-yl)-(2E)-acrylamide;

30 3-(4-((2S,3S,4S,5R)-5-[3-(4-benzylaminomethyl-2-chloro-phenoxy)-1-methyl-(1E)-propenyl]-3,4-dihydroxy-tetrahydro-furan-2-yloxy)-3-hydroxy-phenyl)-2-methyl-N-((3aS,4R,5R,6S,7R,7aR)-4,6,7-trihydroxy-hexahydro-benzo[1,3]dioxol-5-yl)-(2E)-acrylamide;

3-(4-{{(2S,4S,5R)-5-[3-(4-[[Benzyl-(2-dimethylamino-ethyl)-amino]-methyl]-2-chloro-phenoxy)-1-methyl-(1E)-propenyl]-4-hydroxy-tetrahydro-furan-2-yloxy}-3-hydroxy-phenyl)-2-methyl-N-((3aS,4R,5R,6S,7R,7aR)-4,6,7-trihydroxy-hexahydro-benzo[1,3]dioxol-5-yl)-acrylamide

5 3-(4-{{(2S,3S,4S,5R)-5-[3-(2,3-Dichloro-4-[[3-(dimethylamino-propyl)-ethyl-amino]-methyl]-phenoxy)-1-methyl-propenyl]-3,4-dihydroxy-tetrahydro-furan-2-yloxy}-3-hydroxy-phenyl)-2-methyl-N-((3aS,4R,5R,6S,7R,7aR)-4,6,7-trihydroxy-hexahydro-benzo[1,3]dioxol-5-yl)-acrylamide

10 3-(4-{{(2S,3S,4S,5R)-5-[3-(4-(3-chloro-benzyl)aminomethyl-2-chloro-phenoxy)-1-methyl-(1Z)-propenyl]-3,4-dihydroxy-tetrahydro-furan-2-yloxy}-3-hydroxy-phenyl)-2-methyl-N-((3aS,4R,5R,6S,7R,7aR)-4,6,7-trihydroxy-hexahydro-benzo[1,3]dioxol-5-yl)-(2E)-acrylamide;

3-(4-{{(2S,3S,4S,5R)-5-[3-(4-ethylamino-2-chloro-phenoxy)-1-methyl-(1E)-propenyl]-3,4-dihydroxy-tetrahydro-furan-2-yloxy}-3-hydroxy-phenyl)-2-methyl-N-((3aS,4R,5R,6S,7R,7aR)-4,6,7-trihydroxy-hexahydro-benzo[1,3]dioxol-5-yl)-(2E)-acrylamide;

15 3-(4-{{(2S,3S,4S,5R)-5-[3-(3-piperidinyl-2-chloro-phenoxy)-1-methyl-(1E)-propenyl]-3,4-dihydroxy-tetrahydro-furan-2-yloxy}-3-hydroxy-phenyl)-2-methyl-N-((3aS,4R,5R,6S,7R,7aR)-4,6,7-trihydroxy-hexahydro-benzo[1,3]dioxol-5-yl)-(2E)-acrylamide;

3-(4-{{(2S,3S,4S,5R)-5-[3-(4-benzylaminomethyl-2-chloro-phenoxy)-1-methyl-(1E)-propenyl]-4-hydroxy-tetrahydro-furan-2-yloxy}-3-hydroxy-phenyl)-2-methyl-N-

20 ((3aS,4R,5R,6S,7R,7aR)-4,6,7-trihydroxy-hexahydro-benzo[1,3]dioxol-5-yl)-(2E)-acrylamide;

3-(4-{{(2S,3S,4S,5R)-5-[3-{2-chloro-4-[(benzyl-methyl-amino)-methyl]-phenoxy}-1-methyl-(1E)-propenyl]-3,4-dihydroxy-tetrahydro-furan-2-yloxy}-3-hydroxy-phenyl)-2-methyl-N-((3aS,4R,5R,6S,7R,7aR)-4,6,7-trihydroxy-hexahydro-benzo[1,3]dioxol-5-yl)-(2E)-acrylamide;

3-(4-{{(2S,3S,4S,5R)-5-[3-{2-chloro-4-[(ethyl-methyl-amino)-methyl]-phenoxy}-1-

25 methyl-(1E)-propenyl]-3,4-dihydroxy-tetrahydro-furan-2-yloxy}-3-hydroxy-phenyl)-2-methyl-N-((3aS,4R,5R,6S,7R,7aR)-4,6,7-trihydroxy-hexahydro-benzo[1,3]dioxol-5-yl)-(2E)-acrylamide;

3-(4-{{(2S,3S,4S,5R)-5-[3-{2-chloro-4-morpholin-4ylmethyl-phenoxy}-1-methyl-(1E)-propenyl]-3,4-dihydroxy-tetrahydro-furan-2-yloxy}-3-hydroxy-phenyl)-2-methyl-N-((3aS,4R,5R,6S,7R,7aR)-4,6,7-trihydroxy-hexahydro-benzo[1,3]dioxol-5-yl)-(2E)-acrylamide;

30 3-(4-{{(2S,3S,4S,5R)-5-[3-(4-(3-chloro-benzyl)aminomethyl-2-chloro-phenoxy)-1-methyl-(1E)-propenyl]-3,4-dihydroxy-tetrahydro-furan-2-yloxy}-phenyl)-2-methyl-N-((3aS,4R,5R,6S,7R,7aR)-4,6,7-trihydroxy-hexahydro-benzo[1,3]dioxol-5-yl)-(2E)-acrylamide;

and the pharmaceutically acceptable salts, prodrugs and solvates of said compounds.

7. A pharmaceutical composition for the treatment of a bacterial infection, a  
35 protozoal infection, or a disorder related to a bacterial infection or a protozoal infection, in a

mammal, fish, or bird which comprises a therapeutically effective amount of a compound of claim 1 and a pharmaceutically acceptable carrier.

8. A method of treating a bacterial infection, a protozoal infection, or a disorder related to a bacterial infection or a protozoal infection, in a mammal, fish, or bird which
- 5 comprises administering to said mammal, fish or bird a therapeutically effective amount of a compound of claim 1.

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